10 July 9

<u>Enclosure 2</u>

Recommended Guidance for Evaluation

of the

Community On-line Intelligence System (COINS)

Experiment

1. <u>Objective</u>: To design, develop and implement an
experimental, interagency, on-line, computer based intelligence
information system with remote access capability which will
operate at the Top Secret SI security level.

    a. <u>How is the achievement of this objective to
be identified and measured?</u>

      (1) The first part of the objective has
been partially achieved; i.e., the system has been designed,
the hardware installed and connected by means of crypto
protected communication circuits, and some intelligence
information files are available in some agencies for
remote interrogation by users at all participating agencies.
When all elements of the network are functioning together
as planned and users can efficiently access any COINS file
in reasonable time during a reasonable period of each
working day, the first part will have been achieved.

      (2) A Test and Analysis Plan has been
approved to collect and routinely publish statistics
on system utilization and performance, and user opinions
and attitudes towards COINS.

      (3) The feasibility of the system is very
dependent upon its ability to operate securely and to
demonstrate that inadvertent violations of "need to know"
can be limited to an acceptable level.

    b. <u>What constitutes success or failure in the
achievement of this objective?</u>

      (1) Success of this objective will depend
upon the technical capability of the system to operate
securely, reliably and efficiently.

      (2) Failure will result from inefficient
operation or lack of reliability of the network, excessive
down-time or excessive interrogation response time.

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(3) An excessive occurrence of accident...
spillage and violations of need to know" will consti...
prima facie evidence of a failure to achieve the obj...

2. Objective: To test the COINS capability to ...
data bases in one agency more readily accessible to an...
in other agencies, and to ascertain the essential charac...
of files which make them suitable for inclusion in a COINS-
like network.

a. How is the achievement of this objective to be
identified and measured?

(1) Initially, the COINS Experimental network
is configured to facilitate relatively quick reference to
data bases maintained in the computer systems of participating
agencies by intelligence analysts in all other agencies. It
is intended that interrogations be short and direct and that
responses be limited in output volume. A capability for
transfer of complete files for batch processing operations
will not be available during the experimental phase.

(2) The COINS switch log will maintain data
on file usage, and, in addition, each analyst who queries
a COINS file will provide information on file usage satisfaction
via the User Log Form. The in-depth interviews of COINS
users which each COINS participating agency will conduct
should be particularly fruitful for obtaining data on user
reactions to the COINS concept of accessing files and user
file preferences. In addition, the IHC has requested that
each of its members provide data on the types of files
recommended for inclusion in an operational COINS.

(3) After determining by experience and interviews
that a given file is suitable for an on-line interagency
system, the question is: Can its characteristics
be identified and assigned meaningful values against which
to measure the suitability of proposed new files without
resorting to actual on-line retrieval experience with
the new files? If possible, an attempt should be made
midway during the Test and Analysis Phase to identify
those files that appear to be suitable for interagency
use and to evaluate the characteristics which determine
that suitability. Some of the factors to be examined
are: subject and area coverage, sources of information
data elements included, size of each record, date span,
update frequency, number of users by agency (potential

users for a proposed file), response time required by users, alternative methods of data exchange, etc.

    b. What constitutes success or failure in the achievement of this objective?

      (1) The objective will be successful if the experiment demonstrates that access to information through COINS is reasonably efficient and results in generally favorable user reaction when contrasted with the more conventional methods of data retrieval and exchange.

      (2) This objective will be successfully met if a set of files can be identified which would have high utility in an interagency on-line system. This could include judgements that an efficient COINS-like system containing more suitable data bases would have higher utility.

      (3) Experience with other on-line information retrieval systems has shown that with an increase in system efficiency and experience gained by users increased confidence is realized and more specific requirements come into focus. If the mechanism provided by COINS management for data base modification (COINS Operational Procedure No. 1-1968, 22 November 1968) is utilized as a result of user interest files of greater utility may result.

    3. Objective: To provide practical training and actual experience for intelligence analysts in the use of an interagency on-line intelligence retrieval system.

    a. How is the achievement of this objective to be identified and measured?

      (1) Each COINS participating agency has conducted, is conducting, and will conduct training sessions for potential COINS users. Each agency has produced written training materials describing how to use various portions of the COINS network. The COINS Environment Report, which the Test and Analysis Panel has asked each COINS participant to prepare, will detail the measures taken by each agency to interest analysts in the use of COINS and the level and detail of training provided.

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(2) Periodic reports from the COINS Training Panel will provide information on training activities, status and progress.

(3) In-depth interviews of users which are planned by the Test and Analysis Panel will provide insight into the degree of training provided, experience gained and additional training required.

b. What constitutes success or failure in the achievement of this objective?

The objective will be successfully achieved if a representative group of analysts in each COINS participating agency is able to query COINS files with a minimum of difficulty. In addition, those who are so trained must exercise the system sufficiently to gain a level of experience which would permit their evaluation of system utility.

4. Objective: To determine those elements of the total system design which encourage and facilitate analyst usage and those elements which discourage or hinder usage.

a. How is the achievement of this objective to be identified and measured?

The following factors must be examined to determine the threshold between encouraging and discouraging analyst use. For example, analysts might be encouraged to use a system that was highly reliable but would be discouraged from using a system that was not reliable.

(1) Suitability of data bases.

(2) Number, type, location and ease of operation of remote terminals.

(3) Query languages: one vs. many, abbreviations/mnemonics versus plain language; query procedures (i.e., the utilization of preprogrammed queries vs. use of an on-line query language).

(4) Response time

(5) System reliability

(6) System availability (days and hours)

(7) Usability and readability of outputs

(8)   Type and amount of user training

(9)   Currency of data bases

(10) Interactive vs. non-interactive procedures.

(11) Type and quality of analyst aids
(handbooks, on-line file and query descriptions, etc.)

b.   What constitutes success or failure in the
achievement of this objective?

This objective will be successfully met if
each agency is conscientious in its collection of data on
user reactions to COINS. Low user participation in COINS
could result in inadequate data collection.

5.   Objective: To collect the necessary data on file usage,
system efficiency and reliability and user reaction to
permit an evaluation of the feasibility and utility of
operational implementation of a follow-on COINS-like
system.

a.   How is the achievement of this objective to
be identified and measured?

The Test and Analysis Panel has developed a
plan, procedures, and forms for collecting the desired data
and this plan has been approved by all COINS participants.
However, it should be constantly reviewed (monthly at
least) during the T&A period to determine if additions,
deletions, or modifications are necessary.

b.   What constitutes success or failure in the
achievement of this objective?

(1)   If the data collection plan is followed as
recommended, and if there is sufficient usage of the net-
work to obtain the desired user reaction then this objective
will be partially or fully met. Partial failure could
result from gaps in the data collection plan which were
not anticipated during the planning stage.

(2)   This objective will be met if the data
collected during the operational test shows conclusively
that an operational COINS network is or is not needed at
this time.

6.   Objective: Determine the elements and attributes
which would be critical to the success of a full system for
continuing community operations and proposed objectives and
specifications for an operational system.

a. How is the achievement of this objective to be identified and measured?

If all other objectives are met, the data will be available to develop a system plan for an operational COINS network. In other words, this objective is unique in that it is completely dependent on the satisfaction of all the other objectives.

b. What constitutes success or failure in the achievement of this objective?

(1) It will succeed if sufficient data is obtained to define the principal parameters of an operational community system.

(2) This objective could fail if inadequate or inconclusive data is collected in an area critical to the design of an operational system.